



National Science Foundation
4201 Wilson Boulevard
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Dear Colleague Letter - Recompetition of the Management of the National Optical Astronomy Observatory

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Consistent with the National Science Board Resolution on Competition and Recompetition of NSF Awards ([NSB-08-12](#)), NSF will compete the next cooperative agreement for the management and operation of the National Optical Astronomy Observatory (NOAO) through an open, merit-based review process. The Division of Astronomical Sciences (AST) of the Directorate for Mathematical and Physical Sciences (MPS) is currently preparing the program solicitation, which is expected to lead to the award of a ten-year cooperative agreement for the management and operation of NOAO following the end of the current cooperative agreement on September 30, 2015.

This letter provides general information regarding the upcoming competition and invites potential proposing organizations to meet with NSF to identify any information needed for proposal preparation.

ELIGIBILITY INFORMATION

The competition for the management and operation of NOAO will be open to the following organizations or consortia of organizations: academic institutions, other not-for-profit organizations, and any industrial firm operating as an autonomous organization or as an identifiable, separate operating unit of a parent organization. Consortia may include international partnerships, but NSF funds may be awarded only to U.S. organizations.

NOAO must be managed in the public interest with objectivity and independence, free from organizational conflicts of interest, and with full disclosure of its affairs to NSF. NSF will have overall responsibility for award oversight, including technical, programmatic, financial, and administrative performance.

PROGRAM DESCRIPTION

NOAO is a Federally Funded Research and Development Center (FFRDC) sponsored by NSF. NOAO's core mission is to provide competitive access for all qualified professional researchers to state-of-the-art scientific capabilities in optical and infrared astronomy, and to enable the U.S. research community to tackle important modern astrophysical challenges.

NOAO is the national center for ground-based nighttime astronomy in the United States and is operated by a managing organization under cooperative agreement with NSF. NOAO operates optical-infrared (O/IR) facilities sited at locations in Arizona and in Chile. NOAO also coordinates community access to telescopes throughout the U.S. O/IR system.

The Arizona locations include the NOAO headquarters offices and labs in Tucson, Arizona, as well as Kitt Peak National Observatory (KPNO) located approximately 90 km southwest of Tucson. The Tucson

headquarters facility is presently located on U.S. government owned land, while KPNO is situated on approximately 2,308 acres of land leased to NSF by the Tohono O'odham Nation as long as the "premises are used for astronomical study and research or related scientific purposes."

The Chile locations include offices and labs in La Serena, Chile, as well as Cerro Tololo Inter-American Observatory (CTIO) on Cerro Tololo and Cerro Pachón, approximately 60 km from La Serena. All of the Chilean land on which NOAO facilities reside is owned by the Association of Universities for Research in Astronomy (AURA). The La Serena compound is approximately 32 acres and the properties on Cerro Tololo and Cerro Pachón total approximately 91,500 acres. The current Cooperative Agreement (CA) between NSF and AURA stipulates:

In the event that AURA ceases to be the managing organization for the NOAO Project, AURA agrees that it shall enter into a lease agreement with a successor managing organization(s) designated by NSF . . . Such lease arrangement will be made available to the successor organization(s) at a rate of \$1 per year for as long as such property is used and maintained for astronomical research.

NOAO currently operates five telescopes: four 4-meter class telescopes and one 2.1-m telescope. Two of the 4-m telescopes are at KPNO (the Mayall 4-m and the WIYN 3.5-m) and two at CTIO (the Blanco 4-m and the SOAR 4.1-m). The Mayall and the Blanco are nearly identical telescopes, although the Blanco top end has been modified significantly to accommodate the optics for the Dark Energy Camera being used for the Dark Energy Survey (see below). The Mayall and the Blanco offer a wide field of view along with a complement of instrumentation for optical and near-infrared imaging and spectroscopy. Beginning in late 2013, 105 nights per year on the Blanco telescope will be dedicated to the Dark Energy Survey for a five-year period. The WIYN telescope is funded by a consortium (University of Wisconsin, Indiana University, and Yale University plus NOAO). It delivers excellent image quality, and its performance benefits from newer technology in telescope and dome design, and mirror support. NOAO currently has a 40% share in the WIYN telescope time, which is made available for community access through the NOAO Telescope Allocation Committee (TAC) process. The newest NOAO 4-meter class telescope is the Southern Astrophysical Research (SOAR) telescope sited on Cerro Pachó, about 15 km from Cerro Tololo. It is funded by a partnership among NOAO, Michigan State University, the University of North Carolina at Chapel Hill, and the Ministério da Ciência e Tecnologia, e Inovação of the Federal Republic of Brazil. NOAO has a 30% share of the time on SOAR, which is also made available to the community through the TAC process. The 2.1-m telescope is located at KPNO and is currently operated for community access for 100% of available observing time.

A large number of tenant observatories are located at KPNO and CTIO. These tenants reimburse NOAO, on a cost-recovery basis, for infrastructure support as well as technical services. KPNO currently hosts the facilities of consortia which operate 22 optical telescopes and two radio telescopes (www.noao.edu/kpno/tenants). In addition to the telescopes it operates directly, CTIO hosts more than 10 other telescopes and astronomical projects. NOAO receives a modest amount of telescope time for community access on some of these telescopes.

NOAO facilitates access to other U.S. ground-based O/IR telescopes whereby time on non-federal telescopes is made available to the community, most recently through NSF funding via the Telescope System Instrumentation Program (TSIP) and the Renewing Small Telescopes for Astronomical Research (ReSTAR) program. While both the TSIP and ReSTAR program are not currently active, a number of public access nights on non-federal telescopes remain to be assigned pending instrumentation or telescope development. NOAO conducts merit reviews of proposals for such telescope time and assigns the time via their TAC process. In addition, NOAO serves as the U.S. National Gemini Office (NGO). As such, NOAO provides services to U.S. astronomers who propose to use one or both of the Gemini Observatory 8.2-meter telescopes located on Mauna Kea, Hawaii, and Cerro Pachó in Chile. The

services currently include help with all phases of proposal preparation, understanding instrumental capabilities, planning observations, data acquisition, and data reduction. Funding for the U.S. National Gemini Office and the O/IR System support comes from the NOAO base budget awarded by NSF.

Site, telescope, and enclosure design and pre-construction efforts for the Large Synoptic Survey Telescope (LSST) are led by NOAO. A small fraction of NOAO's base funding from NSF has been spent for LSST design and development, while most of NOAO's effort on LSST is funded via a subaward on an award to AURA for the LSST Project Office. In the time frame covered by the new management award, NOAO would play a major role in LSST construction if that construction is funded by the NSF Major Research Equipment and Facilities Construction (MREFC) process. In such a circumstance, LSST construction would not be part of the base operations budget of NOAO, but would be an important component of NOAO activities through the separate funding stream.

The public outreach effort of NOAO is mostly centered in Arizona and Chile, although the publication/dissemination effort is nation-wide in both countries. There are several active educational and outreach efforts to upper elementary through secondary schools in Arizona and Chile. Particular attention is paid to the local populations surrounding the observatories. NOAO, through its managing organization, has an active Workforce and Diversity Committee that meets regularly to advise and report on the observatory's efforts to increase the participation from underrepresented groups as well as a diverse range of institutions and geographic areas.

SPONSOR'S CONCEPT OF NOAO OPERATIONS

As the selected managing organization(s), the awardee(s) will work closely with NSF and the scientific research community to ensure that, within available resources, NOAO supports, sustains, and advances frontier science as enabled by the NOAO's unique research capabilities and as promoted through a culture of excellence. The awardee(s) will be accountable for fulfilling the NOAO mission through visionary strategies that capitalize on the Federal investment to serve the scientific community and to promote world-class research and education.

The awardee(s) will be responsible for the overall management and performance of NOAO, including the infrastructure, instrumentation, and staff, and for maximizing the benefits to the scientific research community through a strategically planned scope of activities. In discharging these responsibilities, the awardee(s) will ensure that NOAO maintains its character with multidisciplinary and multi-user facilities that primarily enable first-rate visitor research.

In cooperation with NSF and within available resources, NOAO will plan and execute viable, coherent and inclusive programs of research and education, consistent with the objectives and priorities of the scientific community. The awardee(s) will manage facilities and equipment provided by NSF, will provide additional facilities and equipment as necessary to fulfill the proposed programmatic scope, and will develop diverse and inclusive teams of expert support and technical personnel to manage NOAO as a scientifically competitive research and education facility. Because the facility is a multi-user resource, a significant portion of the research and education programs should be carried out in collaboration with NOAO's stakeholder communities.

NSF intends that NOAO should serve as an exemplar of management excellence. The awardee(s) will be expected to meet the highest standards for service and delivery to the scientific community and to demonstrate proactive and effective approaches to performance management. The awardee(s) will ensure that NOAO operates with integrity and transparency, maintaining quality and responsiveness in administration and management.

ANTICIPATED COMPETITION SCHEDULE

This notice does not constitute a solicitation; therefore, no award of any kind will result from this notice. Although the competition is still in the planning stage, NSF anticipates that a program solicitation will be issued in the second or third quarter of calendar year 2013. The solicitation will specify program guidelines and proposal requirements, including budgetary information, review criteria, exceptions to [NSF Grant Proposal Guide](#) proposal preparation instructions, and a schedule for site visits and meetings for potential proposers. Also provided as part of the solicitation will be descriptions of the scope of the program, the physical and intellectual property, the expected level of service and expertise, and the nature of international agreements, property arrangements and leases, labor agreements, etc. Much of this information will be included in a resource library to ensure equal access by all proposers.

It is anticipated that the program solicitation will call for the submission of required Letters of Intent, due 90 days after publication of the solicitation. The Letters are expected to provide a statement and documentation of the organization's capabilities to carry out the management and operation of the NOAO, as well as an outline of the organization's vision and design concept for NOAO's future. The Letters would be intended to provide an overview of the applicant's approach, and as such will be limited in length. The anticipated due date for full proposals in response to the program solicitation is six months following publication of the solicitation.

In keeping with current National Science Board guidelines, NSF expects that management competitions such as this will occur on a regular basis during the foreseeable future, with the process for NOAO likely recommencing in 2022 for an award starting in 2025.

REQUESTS FOR INFORMATION

All inquiries regarding this announcement and the competition for the management and operation of NOAO should be directed to the Primary Contact listed below.

NSF invites requests for individual conferences with NSF from eligible organizations interested in this competition. At the conferences, organizations may request clarification of general aspects of the competition or identify to NSF any information needed for proposal preparation, however the program solicitation and accompanying FAQs shall serve as the ultimate reference. Requests should be submitted via email to the Primary Contact no later than 1 April 2013.

Sources of additional information:

National Science Foundation, Division of Astronomical Sciences: <http://www.nsf.gov/div/index.jsp?org=AST>

National Optical Astronomy Observatory: <http://www.noao.edu>

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Sincerely,

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